

Name

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## Chapter 10 Quiz- Cell Cycle

Ms. Capone

**Part A. Matching:** Match the event description with the appropriate term of the cell cycle phase it occurs in. Answer choices may be used once, more than once, or not at all.

G 1. DNA is replicated

A 2. Chromatids migrate to opposite poles of the cell

H 3. Nuclear envelope re-forms around each new set of genetic material.

E 4. Chromosomes line up in the middle of the cell.

D 5. Cell growth and organelles are synthesized (not DNA).

F 6. Chromatin condenses into chromosomes.

F 7. Centrioles move to opposite poles

B 8. Cytoplasm divides

H 9. Chromosomes un-condense into threadlike chromatin.

F 10. Nuclear envelope disintegrates

~~a) Anaphase~~~~b) Cytokinesis~~~~c) G<sub>1</sub> of interphase~~~~d) G<sub>2</sub> of interphase~~~~e) Metaphase~~~~f) Prophase~~~~g) S of interphase~~~~h) Telophase~~

Part B. Multiple Choice. Choose the letter that best answers the question and place it on the line provided.

B

11. Normal mitotic cell division results in each daughter cell having

- a) Half the number of chromosomes as the parent cell
- b) The same number and kinds of chromosomes as the parent cell
- c) The same number but different kinds of chromosomes as the parent cell
- d) Twice the number of chromosomes as the parent cell

A



12. Mitosis occurs in all life cycle events below EXCEPT:

- a) Sex cell production
- b) Wound healing
- c) Body cell replacement
- d) Growth

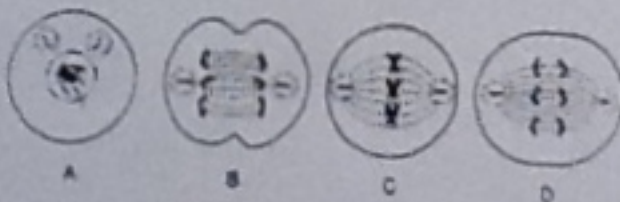
D

13. All of the following are problems that growth causes for cells EXCEPT:

- a) DNA overload
- b) Excess surface area
- c) Difficulty obtaining nutrients
- d) Difficulty expelling waste

B

14. Which is the correct sequence for the stages of mitotic cell division represented by the diagrams below?



- a) A → B → C → D
- b) A → C → D → B
- c) B → A → D → C
- d) B → C → D → A

A

15. What is the role of spindle fibers during mitosis?

- a) Help separate sister chromatids
- b) Break down the nuclear envelope
- c) duplicate the DNA
- d) divide the cell in half



**Part C. Short answer:** Fill in the blank with the appropriate term that correctly completes the sentence.

16. Chromatin is made up of DNA tightly wrapped around histone proteins. ✓
17. Cytokinesis in plant cells is marked by the formation of a cell plate. ✓
18. Human body cells contain 46 chromosomes. ✓
19. Centrioles form and move to opposite sides of the cell and are responsible for the production of spindle fibers. ✓
20. The center of a chromosome is called the centomere and holds the sister chromatids together. ✓